

ABSTRACT OF THE DISCLOSURE

5 A mass analyzer for a ribbon shaped ion beam is disclosed. The mass analyzer comprises a pair of coils that define an entrance end and an exit end of the analyzer. Field clamps are employed at or proximate to one or more of the entrance and exit ends of the mass analyzer. The field clamps operate to terminate fringing fields close to the entrance and exit ends of the mass analyzer, thereby reducing the impact of such fringing fields on the ribbon beam and improving beam uniformity.